

## REMARKS

Entry of the foregoing, re-examination and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112 and in light of the remarks which follow are respectfully requested.

As correctly indicated in the Office Action summary, Claims 1 and 3-14 are pending. The Office Action Summary further indicates that Claims 1 and 3-14 are rejected.

**The Rejection Of Claims 1, 3 And 5-14 Under 35 U.S.C. §102 and**  
**The Rejection Of Claim 4 Under 35 U.S.C. §103**

Claims 1, 3 and 5-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Berg et al.* (U.S. Patent No. 4,685,909) for the reasons given on pages 2-3 of the Office Action. Further, Claim 4 stands rejected under 35 U.S.C. §103(a) as being obvious over *Berg et al.* as applied to Claim 1 above, and further in view of *Wada et al.* (U.S. Patent No. 5,994,614) for the reasons given on pages 4 of the Office Action. Respectfully, Applicants traverse these rejections.

Based on a complete understanding of the present invention as claimed, it is respectfully submitted that the claims cannot properly be rejected based on the document as applied in the Official Action.

The invention relates generally to absorbent structures for absorbent articles, the absorbent structure comprising (i) a wetting region comprising partially neutralized superabsorbent material, the partially neutralized superabsorbent material having a degree of neutralization between 25 and 35%; (ii) and a region outside of the wetting region including a superabsorbent material having a degree of neutralization greater than the neutralization of the partially neutralized superabsorbent material. The absorbent structure has a thickness of

about 1 mm to 8 mm when dry, and the wetting region comprising at least 40% by weight superabsorbent material.

In contrast, the asserted documents do not disclose each and every feature of the invention.

*Berg et al.* describes absorbent articles containing both pH control agents and substantially water-insoluble, highly neutralized (at least 50 %) hydrogel material as a fluid-absorbing polymer. *See, e.g.*, Abstract and column 5, lines 40-44. The pH control agent can be selected from citric acid, adipic acid, azelaic acid etc. as mentioned in for example claim 4 and column 7, lines 58-65, and it could also be selected from polyacrylic acid and its polyacrylate derivatives and poly(maleic) acid and its polymaleate derivatives. The pH control agents and the hydrogel material are placed in distinct zones of the article, since the pH control agent can effect the absorption of the hydrogel material negatively.

The Office action states that *Berg et al.* comprises a wetting region 203 and a region 204 outside the wetting region 203 and refers to Figure 2. However, this region 203 is placed above the region 204. According to the presently claimed invention, the wetting region is described as the crotch region. *See* page 22, lines 21-22 of the specification. Hence, the article according to *Berg et al.* does not anticipate the present Claim 1.

According to the present Claim 1, the absorbent structure comprises "at least 40 % by weight superabsorbent material in the wetting region." This region comprises partially neutralized superabsorbent material. *Berg et al.* discloses that the insert substrates themselves comprise from about 1 % to 30 % by weight of pH control agent and more preferably 5 to 15 % by weight. *See* column 11, lines 28-31. The partially neutralized material according to the presently claimed invention has a very important function in the wetting region because it will absorb liquid, even if the absorption rate is slow. The location

of the slowly absorbing material will avoid gelling in the wetting area. This is because the material will not absorb as much liquid as other absorbing material, and the liquid will still have space between the absorbents to pass further down in the absorbent structure and further to be transported outwardly to the area outside the wetting area.

One of the differences between the article according to the present invention and the article of *Berg et al.* is that the partially neutralized superabsorbent material is present in the wetting region and that a region outside the wetting region includes superabsorbent material having a degree of neutralization greater than the neutralization of the partially neutralized superabsorbent material according to the present invention. According to *Berg et al.*, such a partitioning is not made. A wetting region, as defined in the present invention, does not include partially neutralized superabsorbent material. Neither does a region include partially neutralized superabsorbent material in such an amount as according to the present claim 1.

An absorbent structure according to *Berg et al.* comprises from about 1 % to 30 % by weight of pH control agent and more preferably 5 to 15 % by weight. Further, in the Examples, the pH control agent is present in amounts such as 11, 20, 22% by weight (Table I, Table III). The purpose of the pH control agent is only to control the pH in the absorbent structure in *Berg et al.* The preferred range 5-15 % by weight and the fact that the function is to control pH, points in the direction not to use the pH control agent in amounts of more than about 22 % by weight, or at the most 30 %, which is the upper limit.

The partially neutralized superabsorbent material according to the present invention also controls the pH. However, another main purpose is to absorb liquid slowly in order to avoid gel blocking. This is also why such a large amount as at least 40 % by weight of the partially superabsorbent material needs to be present in the wetting region. It has been found that when using partially neutralized material in an absorbent structure, it can absorb liquid in

a slow way and thereby avoid gel blocking and it can be used in an amount that is at least 40 % by weight. Further on, it is possible to make the absorbent with a thickness as low as 1 to 8 mm, see page 6, lines 4-14.

Since the pH control agent in *Berg et al.* is never mentioned as an absorbent material, and the content in the Examples are as low as 11-22 % by weight, a person skilled in the art would not try to use the pH control agent in amounts higher than these values. Besides, the pH control agent is also exemplified by citric acid etc, mentioned above. It is clearly disclosed in this reference that the pH control agent *needs to be separated from the absorbent material* in order to not decrease the absorption capacity. The thickness of an insert comprising the pH control agent is stated to have a thickness of about 0.2 to 1.5 cm at column 11, lines 40-41, for example.

There is nothing to teach or suggest in *Berg et al.* that the thickness of the insert could be decreased due to any concentration of the pH control agent. If the person skilled in the art would try to use a higher amount of a pH control agent in an insert, which is unlikely, the thickness of the insert would probably have to be in the higher figures of this range since the purpose of using the pH agent and the absorbing material is different in that the absorbing material according to the present invention also has the purpose to absorb liquid. This would mean that the thickness of the insert in *Berg et al.* would be above 1 cm. Hence, the skilled person would end up with an absorbent article having a thickness in the higher part of the range, *i.e.*, about 20 mm, since the total thickness is stated to be up to 20 mm.

Hence, there are two major differences between the present invention and the structure in *Berg et al.* First, the partially neutralized superabsorbent material according to the present invention is located in the wetting region, unlike the structure of *Berg et al.*

Secondly, the content of the material according to the present invention is at least 40 % by weight, while in *Berg et al.* the content is less, at most, 30 % by weight.

According to the relevant standards, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Moreover, there is nothing in the secondary reference to remedy these deficiencies. In other words, the skilled person reading *Wada et al.* would not know how to modify the absorbent structure taught by *Berg et al.* to make it as thin as the product is in *Wada et al.* In this regard, *Wada et al.* discloses an absorbent article, such as a diaper. The Office Action notes that at column 9, lines 59-62 that *Wada et al.* states that "to avoid the occurrence of unpleasant feeling in a wearer and have satisfactory absorptivity to the absorption core, preferably, the thickness...is 1.0 mm or more to 5.0 mm or less..." The Office Action states that it would have been obvious to one of ordinary skill in the art to "construct the absorbent structure of *Berg et al.* with a thickness of between 1 mm and 5 mm, as taught by [*Wada et al.*] to provide satisfactory absorptivity while maintaining a comfortable feel for the wearer."

However, when combining *Berg et al.* and *Wada et al.*, a skilled person would not end up with a thickness of 1 to 3 mm, since the insert of *Berg et al.* would be too thick to obtain this. In this regards, *Berg et al.* teaches away from the thickness recited in *Wada et al.*

Initially, a proper analysis of the obviousness/nonobviousness of the claimed invention by the USPTO requires consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should practice the

claimed invention; and (2) whether the prior art would also have revealed that in so practicing, there would be a reasonable expectation of success. Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Sernaker*, 217 U.S.P.Q. 1, at 5 (Fed. Cir. 1983); and *In re Vaeck*, 20 USPQ2d 1438, 1442 (CAFC 1991).

When so analyzed, it is clear that this rejection is in error because neither of *Berg et al.* nor *Wada et al.* disclose or fairly suggest the originally presented invention, either alone or taken in combination.

Specifically, neither of *Berg et al.* or *Wada et al.*, either alone or when taken together, disclose or fairly suggest (1) the partially neutralized superabsorbent material according to the present invention is located in the wetting region and it is not in the structure of *Berg et al.* or (2) the content of the material according to the present invention is at least 40 % by weight, while in *Berg et al.* the content is less, at most, 30 % by weight.

The Federal Circuit has repeatedly stated that the motivation and the reasonable expectation of success must come from the prior art, not Applicant's specification. *See In re Dow Chem. Co. v American Cyanamid Co.*, 837 F.2d at 473, 5 U.S.P.Q.2d at 1531-1532 ("[t]here must be a reason or suggestion in the art for selecting the procedure used, other than the knowledge learned from the applicant's disclosure"). Using an Applicant's disclosure as a blueprint to reconstruct the claimed invention from isolated pieces of the prior art contravenes the statutory mandate of §103 of judging obviousness at the point in time when the invention was made. *See Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988).

Thus, even if the documents would have been combined in the manner suggested by the Official Action, the present invention would not result. Accordingly, Applicants

respectfully submit that no *prima facie* case of obviousness has been established. Thus, Applicants respectfully request that this ground for rejection be withdrawn.

For the above reasons, Applicants respectfully submit that withdrawal of the rejections under 35 U.S.C. §§ 102 and 103 would be appropriate.

### **CONCLUSION**

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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Limited Recognition Under 37 C.F.R. §10.9(b)  
(See Attached Document)

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